



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## THE DUTCH POLAR EXPEDITION OF 1882-3.

This expedition had assigned to it the carrying out of magnetic and meteorological observations at the mouth of the Yenisei, under the command of M. Lamie, a lieutenant in the Royal Netherlands Navy. The vessel, the *Varna*, was lost in the Kara sea in 1883.

---

STATEMENT OF MR. FRANK RUST,  
OF AMSTERDAM (HOLLAND),  
*A Member of the Expedition.*

At the request of the American Geographical Society, I beg leave to make the following statement respecting the voyage of the steamship *Varna*, of the Dutch International Arctic Expedition of 1882-3, which was lost in the Kara sea in May, 1883, and of the Scientific Corps, of which I was a member.

The main object of the expedition was to take meteorological observations, and incidentally to ascertain whether regular commercial communication could be maintained with the Yenisei and the Obi, Prof. Nordenskiöld having expressed the opinion that the Kara sea would be navigable every year in the months of August and September.

In the arrangements made in London, in 1881, between the nations, for permanent circumpolar stations, the representatives of Holland were asked if they would take Port Dickson as a station, and Prof. Buys-Ballot, of the Netherlands Meteorological Observatory, communicated with

Prof. Nordenskiöld, asking his opinion about the feasibility of reaching Port Dickson ; and Prof. Nordenskiöld replied that there was no difficulty whatever ; and so the station was accepted on the part of Holland, and the *Varna* was sent out in consequence on the 5th of July, 1882, to establish a station there.

To reach Port Dickson, which is at the mouth of the Yenisei, the Dutch expedition and the Danish expedition, in the *Dymphna*, under Lieutenant Hovgaard, commander, were fitted out to go through the Kara sea, upon the assumption that it can be passed, as Prof. Nordenskiöld stated, every year in the months of August and September ; but the result of our expedition has shown, as will appear in my statement, that this assumption is unfounded.

The fishermen from Vardoe, Tromsø, and Hammerfest go every year to the west coast of Nova Zembla for the purpose of catching seals and walruses ; and if the straits of Kara or Jugor are open, they reach the Kara sea. They state that when westerly winds are prevailing, the ice cannot get through these different straits—the Jugor, the Kara, the Matotshkin Schaar—into the outer ocean, because westerly winds blow the currents into those straits, and thus keep the ice inside the Kara sea ; that is, while the wind is blowing it has no outlet.

But, on the contrary, when easterly or southeasterly winds prevail, the wind drives the ice out ; and my observation was that during the two months and a half before we were entirely frozen in, whenever a slight S. E. breeze set in, the ice separated and there was a movement in it, and an opening through it, to a certain extent, and that when the westerly winds sprung up everything closed up, so that an open spot was not to be found.

In the Kara bay there is a certain current, at least a current ran steadily during the time that we were there, the course of which was first easterly as far up as the mouth of the Obi, where it meets the waters of the Obi and Yenisei, which turns it again to a northwesterly direction, and it runs towards and to about the middle of the east coast of Nova Zembla, a coast that is very little known, and then it continues along the easterly coast of Nova Zembla until it meets the current coming in from the Kara straits, where it dissipates and ends. The opinion of the five members of our scientific corps was that this current was a continuation of the Gulf stream, which, entering at the Kara straits, runs through the Kara sea easterly, until it encounters the currents formed by the Obi and Yenisei, when it turns, meeting the resistance of the currents of these two rivers, and returns back along the eastern coast of Nova Zembla, until it reaches the Kara straits again, where its further course as a current ceases, and it breaks.

We left Hammerfest on the 27th of July, 1882, and reached the west coast of Nova Zembla, close to the Kara straits, about the first of August, having steered straight from Hammerfest to the Kara straits, which we found entirely blockaded up with ice ; and being unable to enter the Kara sea by these straits, we attempted, up to the 30th of August, to enter by the Jugor straits, or by the Matotshkin Schaar, but were unable to enter the sea, these three straits being blocked up. We got half-way up the Matotshkin Schaar, which is very narrow, and then had to return, being unable to get any further. Finally we came back to the Kara straits, and on the 30th of August, finding it partially open, we steamed in, when we were caught by the current that I have described as a part of the Gulf Stream,

and carried into the straits at the rate of four or five miles an hour, without steam.

We were taken along by the current unwillingly, because we were satisfied that the Kara sea was blocked up with ice, and that it was getting too late in the year to erect a polar house, for we had had two or three frosts already—at about  $20^{\circ}$  to  $22^{\circ}$  Fahr.

From August 30th we were driven along Waygats and the Siberian coast until we reached lat.  $64^{\circ}$  and long.  $71^{\circ}$ —about. We could not define our exact position, because we could not get the exact horizon.

On the 8th of September a strong easterly breeze sprung up, which divided the ice, and we availed ourselves of this opportunity of getting towards the Jugor straits, with the idea of landing at Cabarocha, at the western opening of these straits. But the next day, when we were in sight of Waygats, the wind veered round to the west, the ice closed up, and we were driven back again to our old position.

On September 17th we saw smoke on the horizon, and came to the conclusion that it was the Danish expedition in the *Dymphna*. We fired up, so that they might see us, and we both managed to get together, after two days' efforts.

On September 22d both vessels got frozen in, lying about 100 yards from each other; and there we remained, in a large flake of ice.

The Danish expedition were provided with large saws, with which they sawed a pathway to a certain extent, but it proved ineffectual, for what was opened during the day with the saw was frozen up during the night.

On the 9th of October was the last that we saw of the disk of the sun; night set in thereafter.

With the polar house that we took from Drontheim, we built a cover over the ship, and in the space occupied by the polar house, in the vessel, we arranged a room for the scientific corps ; but the quarters of all on board were very narrow, as the vessel was arranged merely for a passage boat, and not for wintering in the Arctic.

On December 22d we found that the ship was crushed by the pressure of the ice, the planks being twisted and sprung with the pressure, leaving openings, so that we knew that when the ice broke up the vessel would go down. Being thus forwarned, we were prepared for what did occur—the sinking of the vessel on the 30th of April. We got the flat-bottom boats out, and put flat irons underneath to use them as sledges, and we had besides, two Esquimau sledges, taking with us only ammunition, cooking utensils, a small cooking stove, coal and wood, coffee, &c. We numbered 24 persons in all ; we worked our way over the water and across the ice, as far as Waygats, and on the 14th of May we were picked up by the *Obi*, a Norwegian ship, which landed us at Vardoe, from whence we found our way home.

So far as the result of the expedition is concerned, we could accomplish nothing of scientific value, for the attraction of the iron in the ship destroyed all the observations. Our instruments had been arranged for observations on land at Port Dickson, and were of no use on the ship, as they were affected by the attraction of the iron machinery and by the heat of the stoves which were essential to keep us warm.

The maps that were made for us, to observe the Northern light, to attempt to solve the explanation of that phenomenon, were of no value where we were, as means of

determining what stars the Northern light passes through, as they were made for the longitude and latitude of Port Dickson. The movements there are very rapid and sharp.

I have only to add that our life, during that time, was an exceedingly monotonous one, especially as we could not make any use of our instruments for observations, &c., and had no regular occupation.

Lieutenant Hovgaard had declared his intention of pushing further northward after we left, but his return to Vardoe proves that he did not see any chance of proceeding as far as he intended.